

HEAT-SETTABLE RESINS

ABSTRACT OF THE DISCLOSURE

[0059] Heat-settable epoxy resin mixtures are provided that can be used alone or in combination with fibers to form large composite material structures without the need for high consolidation pressures. The heat-settable resin mixture is composed of a resin component, curing agent component and a particulate component. The particulate component includes rigid-rod polymer particles that dissolve when the heat-settable resin is heated to temperatures within a predetermined processing window. After heating to the processing temperature, the resulting heat-set resin is cooled to form a curable solid resin. The curable solid resin may be stored indefinitely or re-heated to curing temperatures to form a cured product.